



# PUBLIC MEETING

## HAZARD MITIGATION PLAN 2023 UPDATE & MVP COMMUNITY RESILIENCE BUILDING PROCESS

Dunstable, Massachusetts

*November 7, 2023*

# WELCOME & INTRODUCTIONS



**David Langlais, PE**  
Town Engineer  
Hoyle Tanner



**Janet Moonan, PE**  
Project Technical Lead  
Weston & Sampson

## Dunstable's MVP/HMP Core Team:

**Jason Silva**  
Town Administrator

**Bridget Baley**  
Health Agent

**Nichole Davis**  
Hoyle Tanner

**Maria Amodei**  
Board of Health

**Leah Basbanes**  
Selectboard & Con Com

**William Farrell**  
Dunstable Fire Chief

**Dave Tulley**  
Highway  
Superintendent

**John O'Brien**  
Water Commission

**Erik Hoar**  
Police Chief

**Jon Crandall**  
Emergency  
Management Director

**Mike Martin**  
Road Commission  
Chair

Thank you to the Executive Office of Energy and  
Environmental Affairs for the MVP Planning Grant  
Funding for this work

**Michelle Rowden**  
MVP Regional Coordinator  
EEA

## Town of Dunstable Undertaking:

- ✓ **Community Resilience Building (CRB)** process through EEA's Municipal Vulnerability Preparedness (MVP) Planning Grant to obtain Community Designation
- ✓ Preparation of a natural **Hazard Mitigation Plan (HMP)** compliant with the Federal Emergency Management Agency (FEMA)



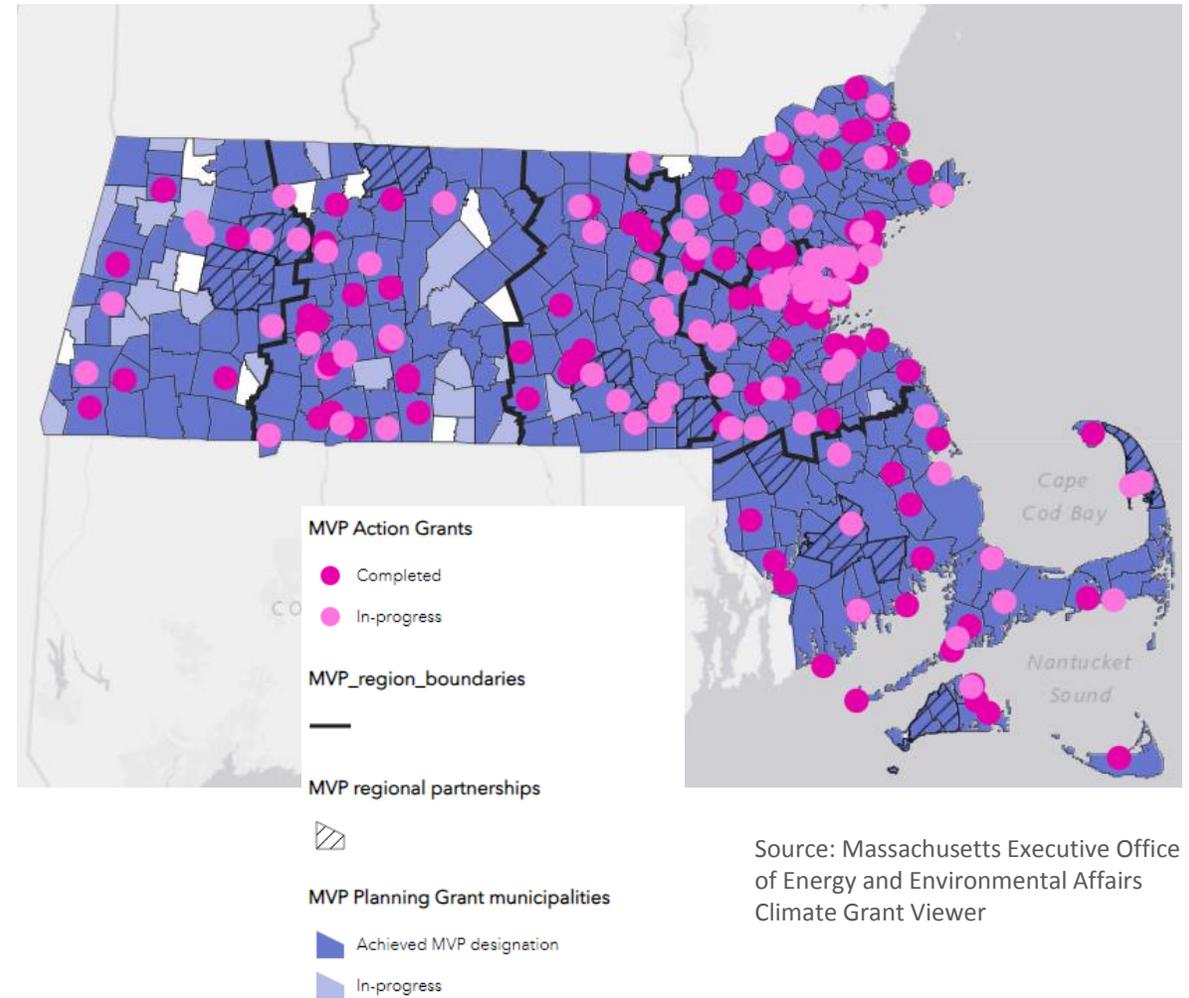
**MVP**  
Municipal Vulnerability  
Preparedness



**FEMA**

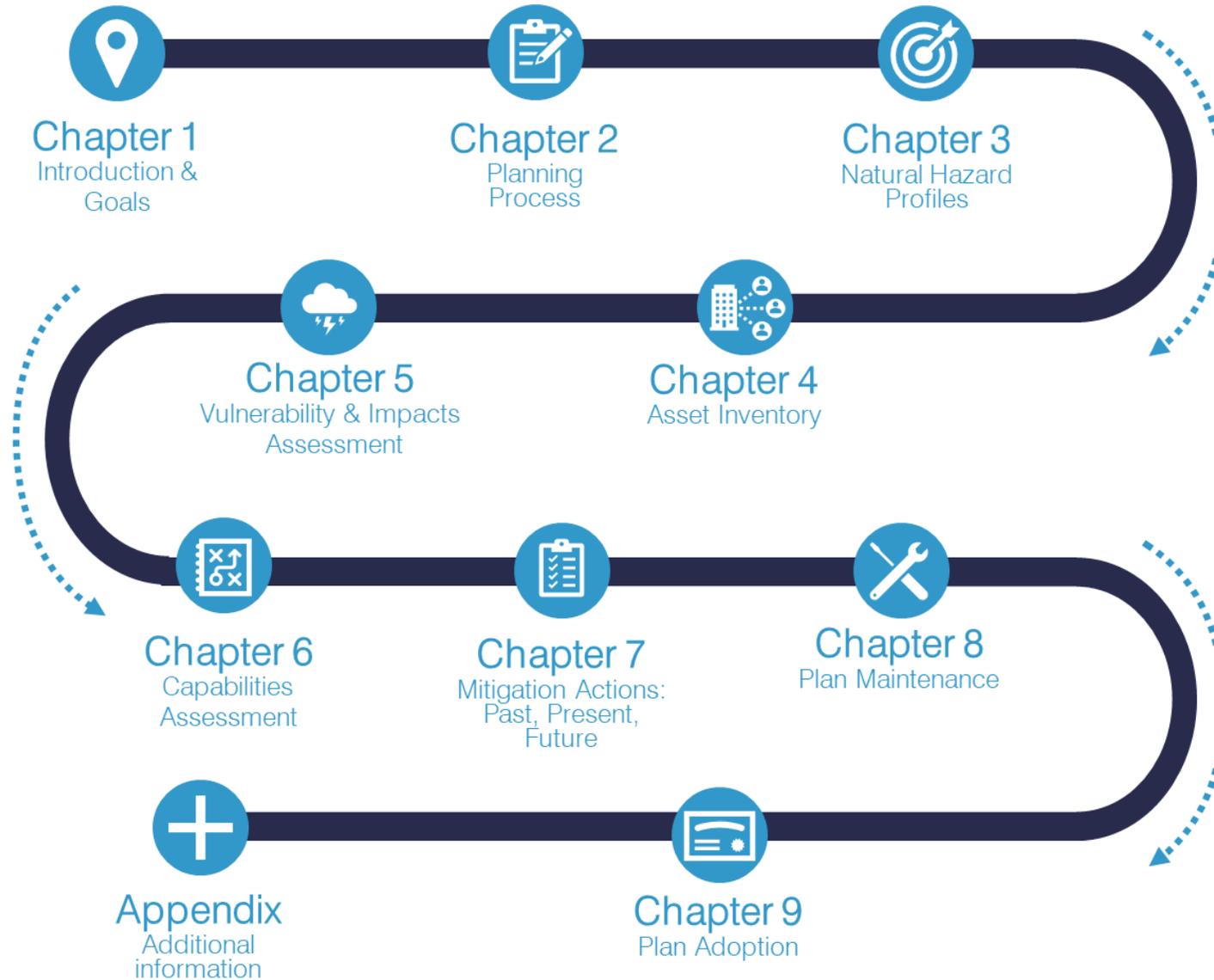
# WHAT IS MUNICIPAL VULNERABILITY PREPAREDNESS (MVP)?

- Improved resilience and preparedness
- Collaboration with stakeholders
- Increased education, planning, and implementation
- Funding for resilience-related actions



Source: Massachusetts Executive Office of Energy and Environmental Affairs Climate Grant Viewer

# WHAT IS A HAZARD MITIGATION PLAN (HMP)?



# WHAT IS THE VALUE OF THIS WORK?



EVERY \$1

SPENT ON MITIGATION



SAVES \$6

ON DISASTER RECOVERY



# DUNSTABLE'S MILESTONE SCHEDULE



BEFORE WE MOVE ON...

# We want your input

Help Dunstable be more resilient to extreme weather events. Take this survey to share your experiences and help the Town improve its planning and response to winter storms, extreme heat, drought, and many other natural hazards.



[tinyurl.com/DunstableHMPsurvey](https://tinyurl.com/DunstableHMPsurvey)

# WHY WE'RE HERE

## Weather projections:

### Changes in precipitation

- 12-42% more winter precipitation by 2070.
- Priority Populations have a 57% higher risk of flood damage than the rest of the Commonwealth.
- Annual economic flood damage increase by \$9.3 million by 2030 in MA.

### Severe Weather

- Precipitation amounts from heaviest storms increased by 55% since 1958.
- Lightning was responsible for \$20.4 million in damage between 2002 and 2022.

### Rising temperatures

- 23-29 high heat days expected by 2050.
- Annual average temperature increase of 5.9 to 7.9 F by 2050.
- Extreme temps will increase annual transportation infrastructure maintenance cost by over \$140 million

### Regional changes

- Increase in frequency and magnitude of hurricanes and nor'easters
- More risk to experiencing tornados.
- Increased fire potential.

Source: ResilientMass Plan (2023)

# NATURAL HAZARDS IMPACTING DUNSTABLE



HURRICANES  
/ TROPICAL  
STORMS



FLOODING FROM  
PRECIPITATION



EXTREME  
TEMPERATURES



SEVERE WINTER  
WEATHER/  
NOR'EASTERS



LANDSLIDES



CHANGES IN  
GROUNDWATER



DROUGHT



WILDFIRE /  
BRUSHFIRE



EARTHQUAKES

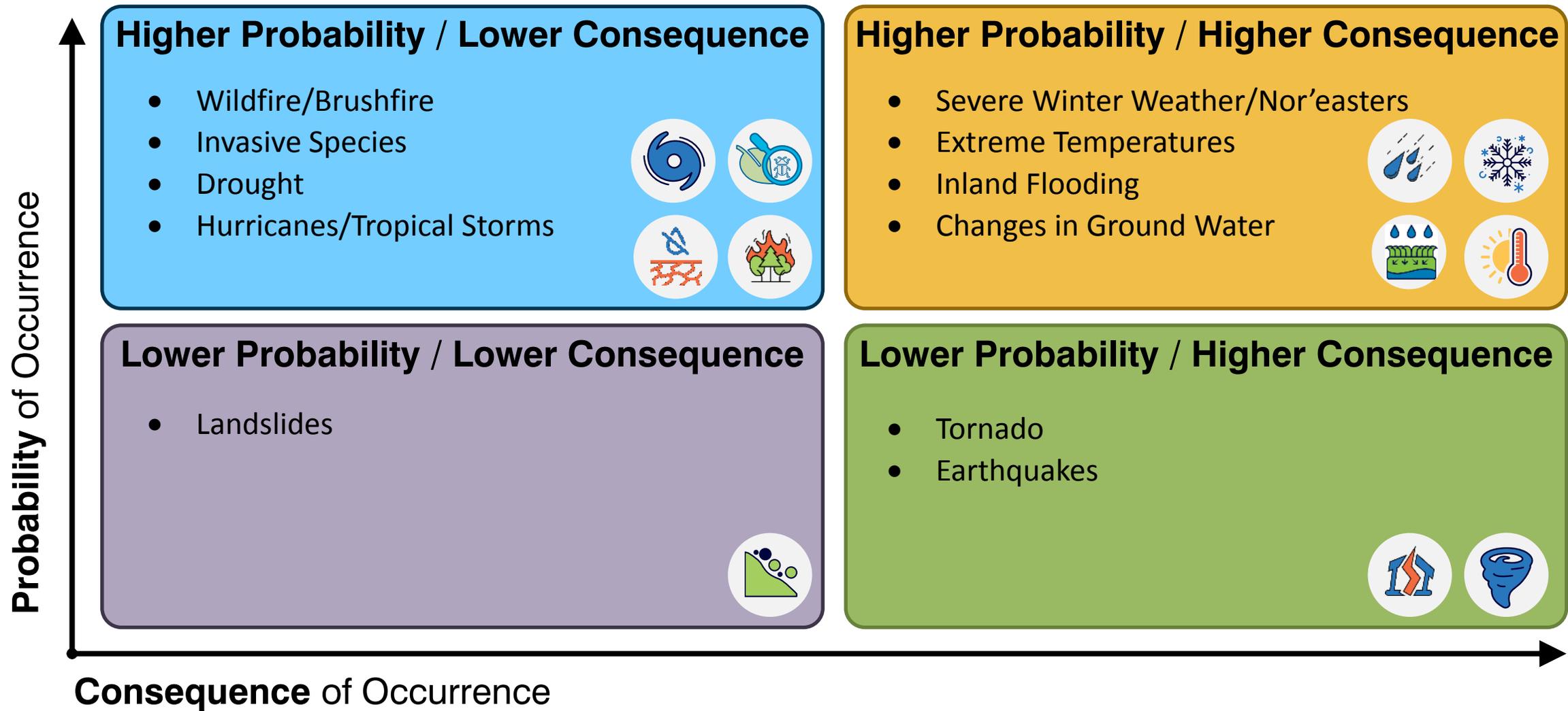


TORNADOES

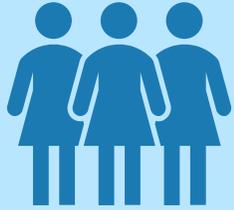


INVASIVE  
SPECIES

# RISKS AND VULNERABILITIES



# DUNSTABLE COMMUNITY ASSETS



## People

- Youth, elderly, priority populations
- School
- Daycares
- Y Camp
- Senior Center at Library
- Volunteers



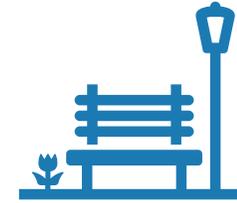
## Structures

- Police, Fire, Town Hall, Library
- School
- Water Tower
- Dams
- Highway Department
- Church



## Systems

- Water system
- Electric grid
- Communications (cable, internet, social media, sign board)
- Roadways & culverts



## Economy & Community Activities

- Local Businesses
- Gas Station
- Summer Concerts
- Festivals
- Scouts
- Agriculture



## Historic / Cultural / Natural Resources

- Extensive open/forested space
- Town Common
- Historic District
- Rail Trail
- Larter Fields
- Little Red Schoolhouse
- Rural Land Trust
- Historic Society

# MITIGATION ACTIONS

A mitigation action is a measure, project, plan, or activity proposed to reduce current and future vulnerabilities to natural hazards. These actions will create resilience for Dunstable (ability to withstand and swiftly recover from an extreme event). These actions will support adaptation to climate change.

## Before an event

- Local code and regulations
- Maintenance
- Proactive Infrastructure Projects

## During an event

- Warnings
- Protection of critical facilities
- Emergency response

## Following an event

- Clean up
- Restoration
- Enhancement

COMMUNICATIONS

# DUNSTABLE'S DRAFT MITIGATION ACTIONS

## Top Actions

- ✓ Fire Department Station/ Lot Resilience
- ✓ Road infrastructure evaluation and management plan
- ✓ Woodward's Mill Pond Dam Repairs
- ✓ Communication plan for priority populations



# MITIGATION ACTIONS FROM WORKSHOPS

## Top Actions

- ✓ Create cooling areas (e.g., natural approaches & structures) at Larter Field, Town Common, school parking lot
- ✓ Culverts & Dams: inventory & evaluation and flood study regarding prevention
- ✓ Education & Outreach for:
  - Invasives
  - Wells
  - Trees



# MITIGATION ACTIONS FROM WORKSHOPS

## Top Actions

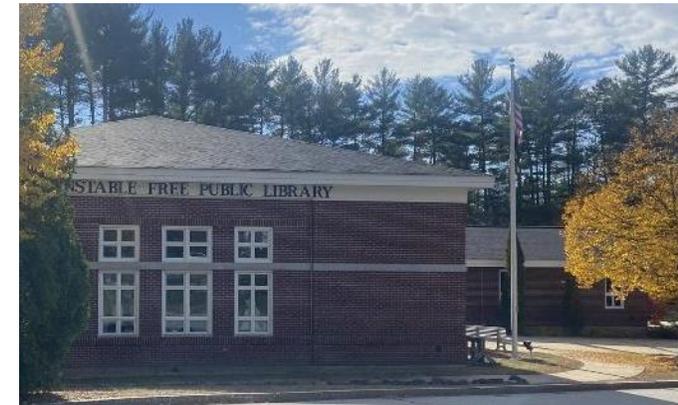
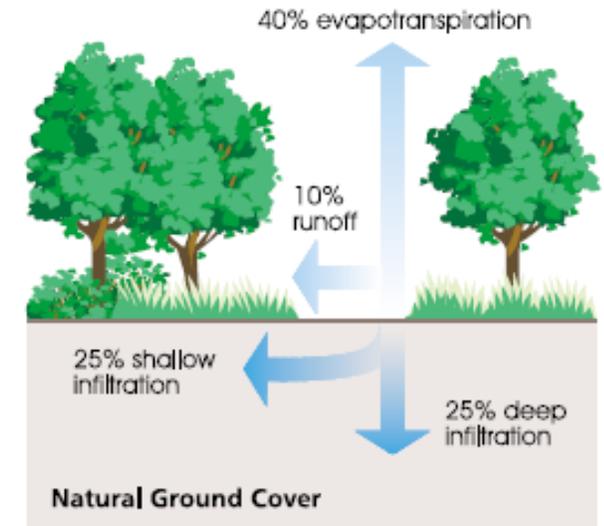
- ✓ Install mixer at water tower
- ✓ Complete a review of bylaws & regulations for climate resilience
- ✓ Add AC to school for shelter use/designation



# MITIGATION ACTIONS FROM WORKSHOPS

## Other Actions

- ✓ Implement Building Envelop Actions at Union School
- ✓ Improve access roads to open / wooded spaces for fire management and emergency response
- ✓ Mitigate potential impacts of flooding and other natural hazards at new development projects
- ✓ Flood study for DPW
- ✓ Develop policies for use for Library/Council on Aging



# MITIGATION ACTIONS FROM WORKSHOPS

- ✓ Provide access to drinking water from town on public properties (e.g., water fountains, fill stations)
- ✓ Improve and create affordable senior housing options
- ✓ Adapt community activities to seasons/weather (time to avoid natural hazards)
- ✓ Develop procedure and obtain equipment for fire department to pump basements
- ✓ Gas / power / energy resilience study
- ✓ Regional Coordination re Cow Pond Dam
- ✓ Police Department resilience study
- ✓ Hydrant inventory & code identification
- ✓ In-person emergency communications plan
- ✓ Encourage sign ups for outreach systems, priority populations in particular
- ✓ Downtown flooding study
- ✓ Generators for heating/cooling at critical buildings
- ✓ Beaver management planning
- ✓ Ongoing maintenance of trees surrounding critical facilities, pre storm event
- ✓ Resilient Bandstand at Town Common



# WAYS TO STAY INVOLVED





**Thank you!**

Questions?

[westonandsampson.com](http://westonandsampson.com)

Weston (&) Sampson<sup>SM</sup>



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